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Air Operating Permit Excess Emissions Report Form Part II

Name of Facility	Shell, Puget Sound Refinery	Reported by	Tim Figgie
Date of notification	December 13, 2012	Incident type: breakdown/ upset/startup or shutdown	Shutdown
Start Date	December 13, 2012	Start Time:	12:00 AM (midnight)
End Date	December 14, 2012	End Time:	5:00 PM
Process unit or system(s): SRU 3			

Incident Description

On December 13, 2012 about midnight high SO₂ readings occurred on the SRU3 during hot sweep of the unit in preparation for shutdown of the unit for maintenance. SRU3 had no feed in the unit during this time and all amine acid gas was routed to SRU4. These high readings are expected and a normal part of shutdown.

The 12-hour rolling average SO₂ was above 250-ppm from December 13, 2012 midnight to December 14, 2012 5 pm. The 1000-ppm SO₂ limit was not exceeded. The SSMP was followed for this shutdown.

Immediate steps taken to limit the duration and/or quantity of excess emissions:

The full amine acid gas feed was routed to SRU4.

Applicable air operating permit term(s): 5.8.15

Estimated Excess Emissions: Based on SO ₂ CEMS and calculated stack flow	Pollutant(s): SO ₂	Pounds (Estimate): 33
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The incident was the result of the following (check all that apply):

- ☐ Scheduled equipment startup
- ☒ Scheduled equipment shutdown
- ☐ Poor or inadequate design
- ☐ Careless, poor, or inadequate operation
- ☐ Poor or inadequate maintenance
- ☐ A reasonably preventable condition

Did the facility receive any complaints from the public?

- ☒ No
- ☐ Yes (provide details below)

Did the incident result in the violation of an ambient air quality standard

- ☒ No
- ☐ Yes (provide details below)

Root and other contributing causes of incident:

PSR0000590

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These emissions are a normal part of shutdown.

The root cause of the incident was:

(The retention of records of all required monitoring data and support information shall be kept for a period of five years from the date of the report as per the WAC regulation (173-401-615))

☐ Identified for the first time

☒ Identified as a recurrence (explain previous incident(s) below – provide dates)

Other shutdowns have occurred.

Are the emissions from the incident exempted by the NSPS or NESHAP "malfunction" definitions below?

☐ No

☒ Yes (describe below)

These emissions are a normal part of shutdown.

Definition of NSPS "Malfunction": Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or failure of a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. 40 CFR 60.2

Definition of NESHAP "Malfunction": Any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. 40 CFR 63.2

Analyses of measures available to reduce likelihood of recurrence (evaluate possible design, operational, and maintenance changes; discuss alternatives, probable effectiveness, and cost; determine if an outside consultant should be retained to assist with analyses):

These emissions are a normal part of shutdown.

Description of corrective action to be taken (include commencement and completion dates):

See above

If correction not required, explain basis for conclusion:

See above

Attach Reports, Reference Documents, and Other Backup Material as Necessary. This report satisfies the requirements of both NWCAA regulation 340, 341, 342 and the WAC regulation (173-400-107).

Is the investigation continuing? ☒ No ☐ Yes

Is the source requesting additional time for completion of the report? ☒ No ☐ Yes

Based upon information and belief formed after reasonable inquiry, I certify that the statements and information in this document and all referenced documents and attachments are true, accurate and complete.

Prepared By: Debbie Thompson Date: December 13, 2012

Responsible Official or Designee: 

Date: 1/24/13